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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/765,712	01/19/2001	Randy K. Young	201009/131	2864

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EXAMINER

NGUYEN, DUNG X

ART UNIT	PAPER NUMBER
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2631

12

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/765,712

Applicant(s)

YOUNG, RANDY K.

Examiner

Dung X Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 98 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 - 54 and 69 - 98 is/are allowed.
- 6) ☒ Claim(s) 55, 58, 61, 63 and 64 is/are rejected.
- 7) ☒ Claim(s) 56, 57, 59, 60, 62, 65 - 68 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments filed on April 30, 2004 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the new found reference(s).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 55, 58, 61, 63, and 64 are rejected** under 35 U.S.C. 102(b) as being anticipated by Wornell et al. (US patent # 5,285,478).

Regarding claim 55, Wornell et al. discloses:

- The receiver, which receives a doublet (as definition, see the chain of figures 5- 10 and column 7, line 11 to column 8, line 53);
- Extracting processor (38) corresponding to a processing system, which extracts the information from the doublet based on one of a plurality of time scales (abstract, lines 5 – 6) which was applied to the doublet prior to transmission (column 1, lines 35 – 46, column 3, lines 24 – 27, and column 4, lines 43 – 47).

Regarding claim 58, Wornell et al. further discloses that wherein the processing system also extracts the information from the doublet based on one of a plurality of time delays which was applied to the doublet prior to transmission (column 15, lines 1 – 10 and 14 – 19).

Regarding claim 61, the limitations are analyzed in the same manner set forth as claim 55.

Regarding claim 63, the limitations are analyzed in the same manner set forth as claim 58.

Regarding claim 64, Wornell further discloses that wherein the information comprises messages embedded prior to the transmission of the doublet (column 3, lines 24 – 27 and column 4, lines 43 – 47).

Allowable Subject Matter

4. **Claims 56, 57, 59, 60, 62, 65 - 68 are objected** to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. **Claims 1 – 54, and 69 – 98 are allowed.** The following is a statement of reasons for the indication of allowable subject matter:

Regarding to the claimed invention, the prior art of record fails to show or render obvious of a communication system for active sensing and navigation. The modulation time-delays and time-scales compress an arbitrary, noise-like “base signal”, then it substantially sums this time-scaled and time-delayed with the other one of the original base signals to form a doublet. The doublet forming process can be repeated and multiple doublets can be summed together and simultaneously transmitted. The demodulator uses the applied time-scale and time-delay to extract information from the doublet.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fullerton et al. (US patent # 6,031,862) discloses an ultrawide-band communication system and method.

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Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (703) 305-4892. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Ghayour Mohammad H. can be reached on (703) 306-3034. The fax phone numbers for this group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.

DXN

May 17, 2004


JEAN B. CORRIELUS
PRIMARY EXAMINER
6/1/04